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Loudoun 2040 Comprehensive Plan

July 12, 2018 | Planning Commission Meeting



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- 2. Fiscal Impact Modeling
- 3. Countywide Transportation Plan & Travel Demand Modeling
- 4. Next Steps
- 5. Question & Answer



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Envision Loudoun & General Plan Overview

July 12, 2018 | Planning Commission Meeting



Overview

- 1. Needs Why create a new plan?
- 2. Process How did we get to this point and what comes next?

3. Draft Plan - What has been created?

4. Moving Forward - Planning Commission Work Plan



Needs

- Revised General Plan adopted in 2001
 - 309 pages
 - 1,200+ policies
- Twenty-eight Amendments (CPAMs)
- New Plan Needed:
 - Community conditions have changed significantly
 - New development types
 - Limited updates



Plans: From Older to Newer Models

Newer plans are generally written for a wider audience, and planning concepts and policy direction are presented using concise methods.

Town of Cary Land Use Plan

6.2.6 Activity Center Design Elements

Table 6.2 lists a range of design characteristics or elements that are expected for any type of activity center (neighborhood, community, or regional). Development proposals will be expected to demonstrate that they have addressed these elements where practical. Additional design criteria for activity centers are given in Chapter 7 of this plan, and in the Town of Cary's Design Guidelines Montal.

Table 6.2 Expected Center Design Elements

Category	Expected Center Design Elements			
	Land uses or activities may be mixed between adjacent sites (horizontal mixing), or on different floors of the same building, such as dwellings over shops (vertical mixing). Such mixing of land uses encourages a compact and pedestrian- oriented center.			
Mixing	The design and layout of buildings, uses, and site elements on each quadrant should provide short, safe and convenient pedestrain and bicycle links between buildings on one quadrant and those on the other quadrants. Where this proves unfeasible, a mix of commercial and/or office, and supportive higher-density residential uses should be provided on the same quadrant or same side of an arternal.			
Residential Density Transitions	Unless otherwise indicated in an Area Plan or on the Land Use Plan Map, housing densities should generally be arranged to progressively decrease outward from the center boundary in order to transition with adjoining neighborhoods. (See Figure 6.1)			
Parking	It is appropriate to provide shared parking for uses in centers. Shared parking should be sited and designed to minimize parking provision.			
	Sensitive designs that tuck parking under or to the rear of multifamily units should make higher densities feasible.			
Public Outdoor Space	Formal outdoor space for public use, such as a formal park, village green, or plaza, should be provided as focal points for public interaction. Larger activity centers should include more such space than smaller centers (see Table 5;). Public spaces must be well-related to the center and create focal points, and just be space left over after buildings have been sited. Spaces will normally provide shaded seating areas.			
Site Design	The site design of an activity center (including the location of buildings and uses) should conform to the Town of Cary Design Guidelines Manual (DGM). Where there is a conflict between this table and the DGM, the DGM shall take precedence.			
Transit Access	The center's layout will normally include a location for a [future] local transit stop and internal circulation will normally facilitate transit service.			

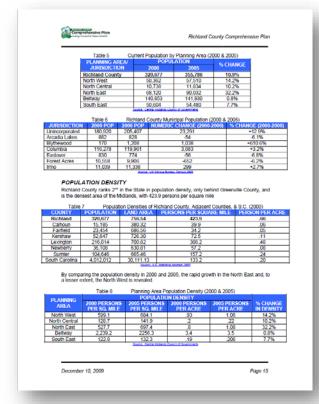


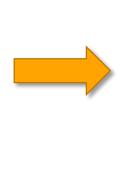
IGN CONCEPTS FOR TRANSITIONS RETWEEN CENTERS AND NEIGHBORHOOD DESIGN CONCEPTS FORTRANSITIONS BETWEEN CENTERS AND NEIGHBORHOODS TRANSITION APPROACHES challenge of how to transition between these new denser neighborhoods through the preservation of or planting areas and established neighborhoods. Determining the of a natural buffer. Walkable connections to surrounding appropriate design approach for managing transitions neighborhoods can be the lifeblood of mixed use spaces, but between developments will depend on the objectives for there are still times where it will be appropriate to provide the transitional space: separate developments or connect them. This section sets out different approaches to making transitions that can be considered when approving future This section highlights several examples for creating mixed use developments. transitions between mixed use centers and existing neighborhoods: connecting with (1)form, (2)use, and (3) Design can be used to smooth connections between architecture, or separating with (4)natural buffers. These individual developments. An attractive, walkable, transitional four strategies are not mutually exclusive, and a good space can be achieved through building form, land use, and architectural elements.

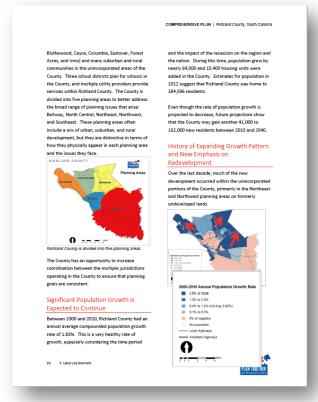


Plans: From Older to Newer Models

Newer plans are more future focused and don't include extensive inventories and stats that will be quickly outdated.

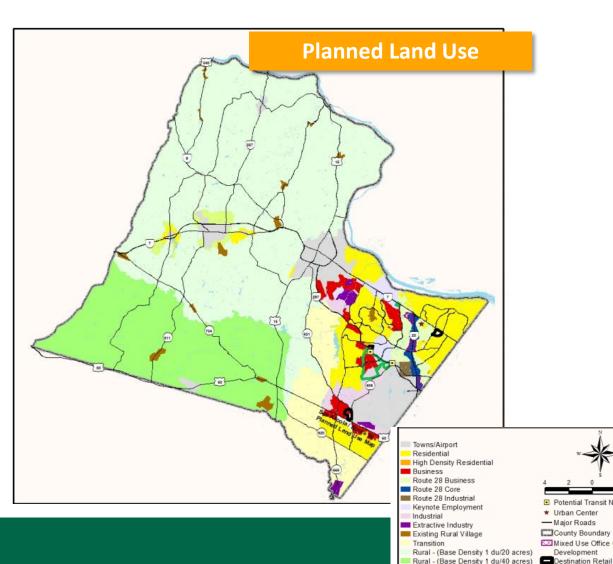








Current Planned Land Use Model



Land Use Pattern and Design Policies

- 1. The County's vision for the Suburban Policy Area is self-sustaining communities that offer a mix of residential, commercial, and employment uses; a full complement of public services and facilities; amenities that support a high quality of life; and a design that conforms to the County's Green Infrastructure and incorporates Conservation Design.
- 2. Suburban Policy Area communities will be developed as efficient, compact, mixed-use and pedestrianoriented communities with a range of residential lot sizes, in accordance with the community design policies of this Plan, will provide a measurable standard open space (active, passive, and natural) as specified in the land use matrix, and will fully integrate the County's Green Infrastructure.
- 3. The County, in collaboration with other govern-mental agencies and the private sector, will ensure through a variety of measures that all public spaces in residential and commercial areas are pedestrian friendly. These measures may include the construction, improvement, and maintenance of public squares, parks, and pedestrian malls, and the attention to street design details such as landscaping, lighting, and provision of attractive street furniture.
- 4. The County adopted three Small Area Plans encompassing the suburban communities and the three Silver Line Metrorail Stations within the County. These plans, which may be redefined in the future. will provide for the development of the Suburban Policy Area. The communities are Sterling, Potomac, Dulles, and Ashburn, as shown on the Suburban Community Boundaries Map.
- 5. All new development proposals in the Suburban Policy Area will be designed using the "conservation design" approach as detailed in the Revised General Plan.
- 6. The development phasing plan for a mixed-use project will establish a build-out relationship between the residential and non-residential components of the project that is consistent with the County's goals
- 7. Alterations to approved land use projects will conform to the land use and design goals and policies of
- 8. For properties up to 50 acres outside of Keynote Employment designations, the land use mix attributed to the various land uses may not be achievable due to the small size of the parcel. In such cases, an applicant for rezoning may vary from the land use mix specified in the Plan by showing that an alternative is more appropriate to the specific site. This can be accomplished by providing the County with a survey of land uses within a 1,500-foot radius of the site.
- 9. Development proposals proceeding through the legislative and site planning process will conform to the County's community design guidelines. The design guidelines will be implemented as a part of legislative applications (e.g., rezonings and special exceptions) and incorporated into regulatory

ice, Facilities Standards Manual (FSM), and Land Subdivision

here applicable.

acter and cultural importance of the historically significant areas I work with the local communities towards the designation of ation Districts. Other historically significant areas within the protected/enhanced. Pedestrian access to and from existing and

Notes:

Potential Transit Node Location

* Urban Center

- Maior Roads

County Boundary

Development

Rural - (Within Town JLM A)

Mixed Use Office Center

Special Activities Area

Revised July 23, 2001, amended through December 11, 2013. This map represents generalized planned land use and does not reflect existing zoning or land use

For illustrative purposes, the centerline of Highways and the Dulles Greenway are shown as boundaries between Planned Land Uses. This is not meant to imply that the Comprehensive Plan supports the development of any land use within the road right of we

This map reflects CPAM revisions CPAM 2004-0007 CPAM 2004-0008, CPAM 2004-0009, CPAM 2004-0025, CPAM 2004-0028, CPAM 2005-0005, CPAM 2005-0007, CPAM 2006-0002, CPAM 2009-0001, CPAM 2012-0002 CPAM 2012-0003, CPAM 2013-0001

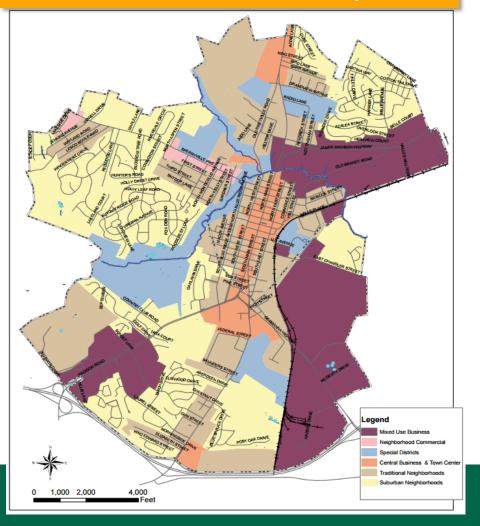
For land uses in the Arcola Route 50 area please use the

Source: Loudoun County Planning Department and Office of Mapping and Geographic Information Map Number 2014-386, replaces Map Number 2013-336.



Evolving Land Use Plans

Land Use & Character of Development









CHARACTER AREA 1 DESCRIPTION

Mixed Use Business

DISTRICT



Mixed Use Business Districts are a suburban, auto accommodating district for retail and office uses. These districts should combine retail, office, civic, limited residential and open spaces into a cohesive districts of blocks based on a grid or intersecting perpendicular street pattern. Emphasis should be placed on the pedestrian experience with parking accommodated in screened surface lots or structured parking.



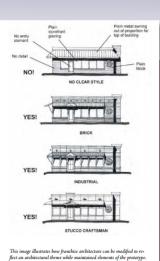
These districts should accommodate sites for large format retail and office uses, mixed use buildings, well land-scaped surface parking, and parking structures. Buildings should be arranged to create a consistent street wall close to sidewalks, and organization of buildings around a central square or main street is encouraged. Sidewalks, paths, and landscaping should be consistent within a development and are important aspects of site descien.



Buildings in Mixed Use Business districts should display traditional architectural characteristics and should be between one and three stories in height. Buildings should incorporate human scale elements, and a consistent architectural style should be employed within a development. Windows and doors should be arranged to provide transparency along the street wall and create a regular pattern in each building.

CC Co par wit with with with the control of the con

The image above shows how mixed use buildings can be configured



MIXED USE BUSINESS GUIDELINES & STRATEGIES

COMMUNITY CHARACTER

Community character guidelines & strategies define the parameters for the layout of the district, sites and buildings within a Mixed use Business area in a manner consistent with the preferred character.

District

- 1. Discourage single-building developments.
- Encourage a walkable village/Town center development form for retail, commercial, and office uses.
- Encourage larger, multi-building, village-like developments configured in a manner that breaks the site into a series of smaller "blocks" defined by on-site streets, vehicle access ways, public plazas and open spaces, pedestrian walkways, or other circulation routes.

Site

- 4. Require buildings to be set close to interior streets.
- Require all commercial signs to be monument type with materials coordinated with the primary structure.
- Limit the number of signs for a development so that signs are collocated on individual panels of a single sign to discourage individual monument signs.
- Require landscaping materials as a means to soften the appearance of parking areas and reduce the automobile dominance of retail/commercial sites.

Building

- 8. Require a consistent architectural theme for buildings within a retail/commercial development, including freestanding out-parcel structures. Consistency should be established for the character, materials, texture, color, and scale of buildings. Franchise restaurants, retail chains, and other franchise-style structures should adjust aspects of their standard architectural model to be consistent with a development's architectural character. Signage and lighting should be consistent with subsequently adopted signage/design trandards.
- Require the mass and scale of retail/commercial buildings, including large retail stores, to be visually



Comparison: Older and Newer Plans

Characteristic	Older Plans	Newer Plans	
Policy Direction	Lengthy narrative	Streamlined policy guidance	
Graphics	Limited	Provided throughout	
Future Land Use	Focus solely on land use	Character based and coordinated with transportation	



- Board initiated process for a New Comprehensive Plan (Envision Loudoun) on March 1, 2016
- Charter approved on April 21, 2016; 9 key Issue Areas identified

Economic Development	Transition Policy Area
Residential Housing Choice and Diversity	Redevelopment/Revitalization
Suburban Policy Area	Community Facilities and Supporting Infrastructure
Quality Development	Fiscal Management
Growth Management	

- Stakeholder Committee Formed 26 members
 - Met from June 20, 2016 to July 9, 2018



- Silver Line CPAM merged with Envision Loudoun
- Public Input Three rounds of meetings
- Draft plans delivered May 7, 2018
- Analysis of Fiscal and Transportation Impact
- Board of Supervisors receives draft plans from Stakeholders Committee at July 19, 2018 meeting and sends to Planning Commission



- Planning Commission reviews and revises drafts in August-December
- Goal: Planning Commission recommends revised plans to Board in December 2018
- Goal: Board adopts plans in early 2019



Stakeholders Committee completed the following work:

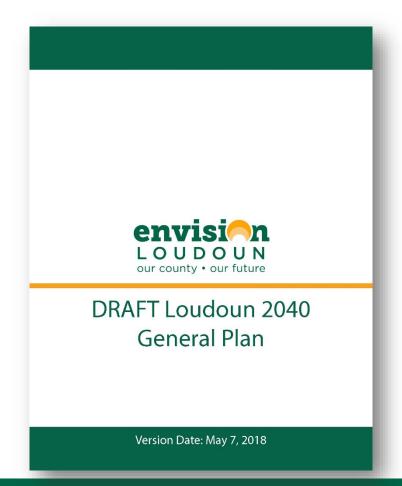
- Development of new vision and goals
- Review of all existing <u>Revised General Plan</u> policies
- Development of new policies, strategies and actions
- Review of history and development of the Countywide Transportation Plan, Market Analysis, and Fiscal Impact Modeling
- Set direction regarding all 9 key issues in Charter
- Review of draft plans
- Consideration of public comments
- Final recommendations for Planning Commission consideration



Loudoun 2040 General Plan

- 1. Introduction
- 2. Land Use
- 3. Green Infrastructure
- 4. Housing
- 5. Economic Development
- 6. Fiscal Management & Public Infrastructure
- 7. Implementation

Glossary





Plan Areas of Focus

- Urban Policy Areas
- Housing Choice and Diversity
- Infill and Redevelopment
- Economic Leadership
- Natural and Heritage Resources



Plan Characteristics

- Strategic
- Easy to Understand
- Overarching
- Flexible



Key Differences from RGP

- Additional Policy Area: Urban
- Land Use ⇒ Place Types
- More Flexible Policy Statements
- Policy Hierarchy (Policies, Strategies & Actions)

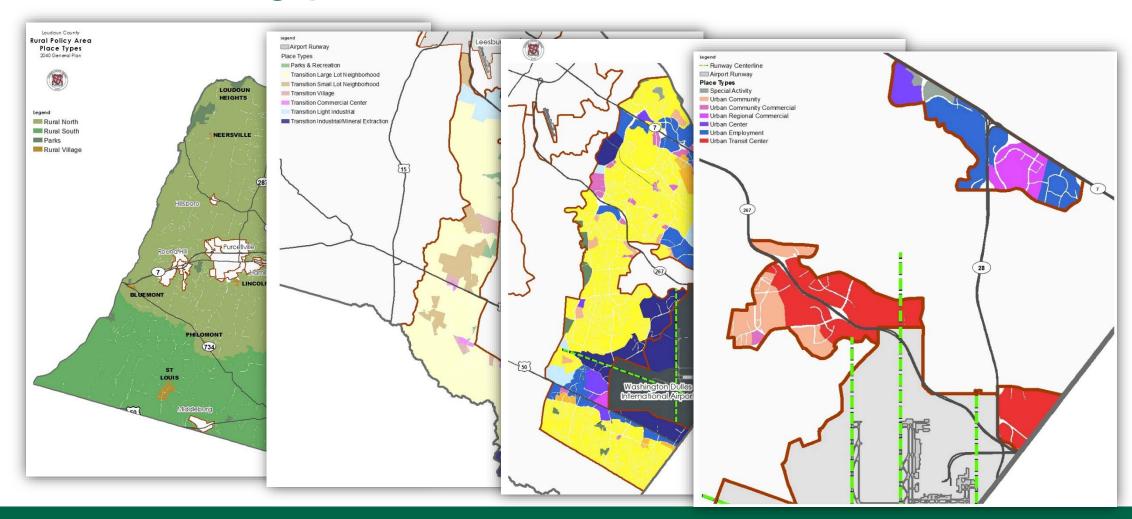


Place Types

- New Model in Thinking About Land Use
- Goals for New Approach:
 - Address character and quality of place, not just land use
 - Guide consistent interaction of built environment and transportation network within different contexts
 - Provide guidance for infill / redevelopment contexts
 - Capture current land use patterns and development types, while providing flexibility for evolution over time
 - Introduce new development types to meet evolving preferences of households and employers



Place Types





Forecasting Future Growth

MARKET ANALYSIS: DEMAND

LAND USE PLAN:
SUPPLY

DEVELOPMENT FORECASTS

"Medium" demand under the RGP = "Medium" demand under the 2040 Plan

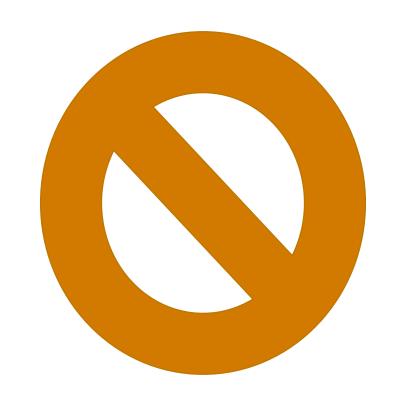
- When supply greater than demand: forecasts match
 - Examples: Multi-family attached, office

 Retail and Other (Public Facilities, hospitals, etc.) based on population growth



Market Analysis - No Constraints

- No limitations to development
- Does not consider:
 - Revised General Plan or Loudoun 2040 Plan's planned land use
 - Policy Areas Rural, Transition & Suburban
 - Supply of available land
 - Environmental constraints (floodplain or conservation easements)





Unconstrained Market Forecasts Residential Results

Countywide Residential Units through 2040 based on Demand (Net New Units)

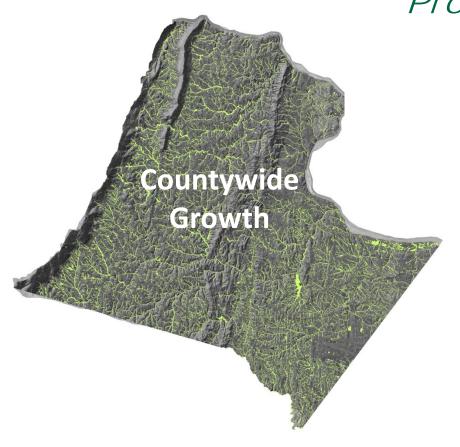
	SFD	SFA	MF	Total
Demand	28,370	23,480	23,020	74,870

Medium Scenario



Constrained Forecasts

Projected Countywide Growth by Product Type



Product Types:

- Residential
 - SFD Rural
 - SFD Suburban
 - SFA
 - MFA Suburban
 - MFA Urban
 - MF Stacked
 - GQ
- Retail: Suburban & Urban
- Hotel
- Office: HD, HD Urban & LD
- Industrial: Light & Heavy
- Data Center

Scenarios:

- Revised General Plan
 - Medium
- Loudoun 2040 Plan
 - Low
 - Medium
 - High

Timeframes:

- 5-year intervals
- 2015-2040



Constrained Forecasts - Steps

COUNTYWIDE UNCONSTRAINED FORECASTS



APPLIED CONSTRAINTS



COUNTYWIDE CONSTRAINED FORECASTS



SUMMED UP TO FAZS (6)



ALLOCATED TO TAZS (668)



Constrained Forecasts - Constraints

- Revised General Plan or Loudoun 2040 Plan's planned land use
- Supply of available land as of July 1, 2017
- Entitlements as of July 1, 2017; Active by-right
- Environmental constraints (conservation easements or >50% Floodplain)



Constrained Forecasts Residential Results

Projected Countywide Residential Units through 2040 (Net New)

	SFD	SFA	MF	Total
Revised General Plan	10,513	4,144	14,808	29,465
Loudoun 2040	12,144	7,160	18,888	38,192
Difference	1,631	3,016	4,080	8,727





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Loudoun County 2040 Fiscal Impact Modeling

Presentation to:

Loudoun County Planning Commission July 12, 2018

Presented by:

Julie Herlands, AICP, Vice President, TischlerBise



Fiscal Impact Analysis Overview

- Analytical tool that evaluates "net fiscal impact" of proposed land use scenarios
- Fundamental Question: Are the revenues generated by development enough to cover related expenditures for service and facility demands?
- Net Fiscal Impact:

Revenues – Expenditures = Fiscal Impact

- Results can be:
 - Fiscally positive: Revenues exceed costs
 - Fiscally neutral: Revenues equal costs
 - Fiscally negative: Costs exceed revenues



Key Concepts

- Compares fiscal differences of <u>future development</u>
- Emphasizes <u>comparisons</u> rather than the absolute dollar amounts
- Shows magnitude and direction of differences



Main Drivers of Fiscal Impact Results in Loudoun County

- Demographic and Market Characteristics of New Growth
- Mix of Residential and Nonresidential Development
- Proffers Available to Offset Capital Costs
- Local Revenue Structure
 - Real property tax is the single largest revenue source



Analysis for Loudoun 2040 Comprehensive Plan

May 7, 2018 Draft



Methodology

- Impact of future development, through 2040
- Results presented:
 - cumulatively and in five-year increments
 - four scenarios
 - geographic subareas
- Calculated revenues along with operating and capital costs
- Modeled all General Fund revenues and expenditures
- Included other funds that are affected by growth



Growth Assumptions: Countywide

SCENARIO 1: Revised

General Plan Baseline

Forecast

Cumulative Growth Projection Detail
LOUDOUN COUNTY FISCAL IMPACT MODEL
COUNTYWIDE

TOTAL RESIDENTIAL UNITS

POPULATION	122,113	143,601	148,155	155,633

45,292

SCENARIO 2: Loudoun

2040 Proposed Plan

Low

53,281

SCENARIO 3: Loudoun

2040 Proposed Plan

Medium

55,611

 SCHOOL ENROLLMENT
 22,948
 27,481
 28,001
 28,867

TOTAL NONRESIDENTIAL GROSS SQUARE FEET 55,719,895 53,844,949 59,410,429 65,031,044

TOTAL EMPLOYMENT 87,079 84,432 92,700 101,526

The total residential units shown above include Group Quarters. Group Quarters are places where people live in a group living arrangement, such as nursing homes, dormitories, and jails.



SCENARIO 4: Loudoun

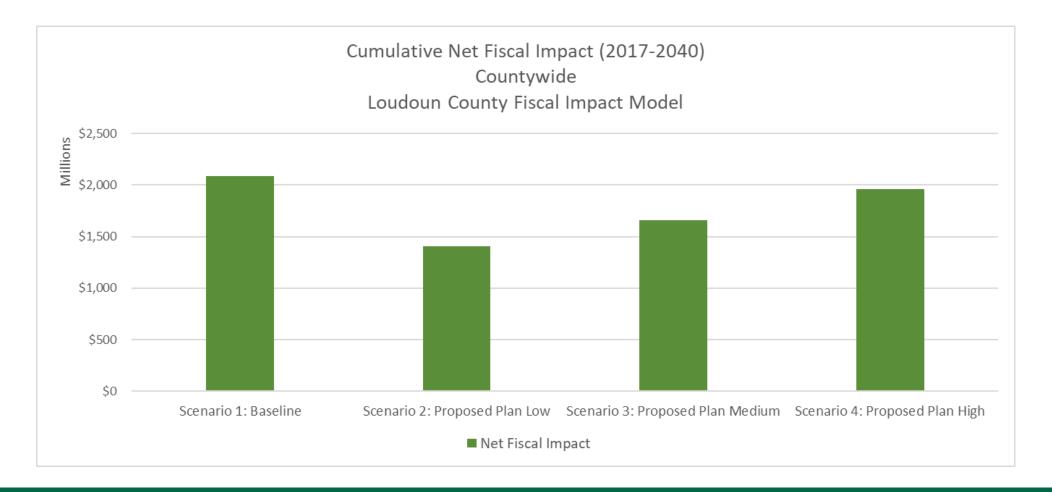
2040 Proposed Plan

High

59,424

Countywide: Net Fiscal Impact

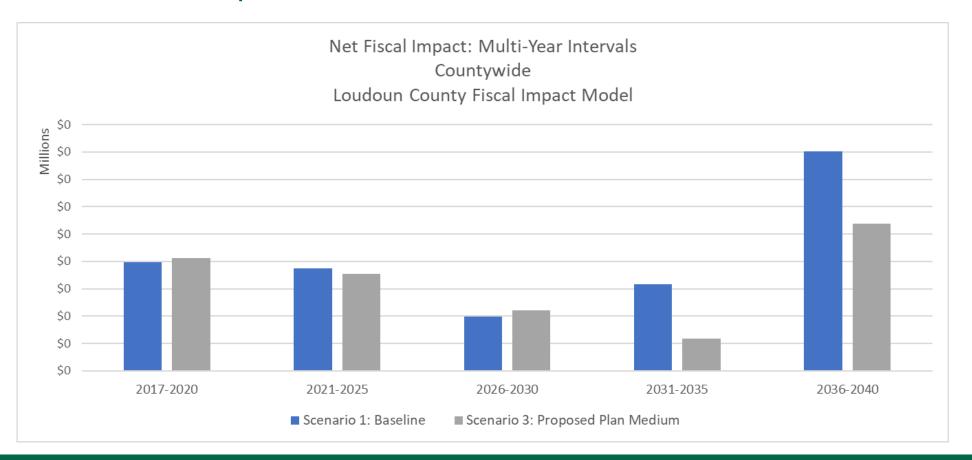
Cumulative Results





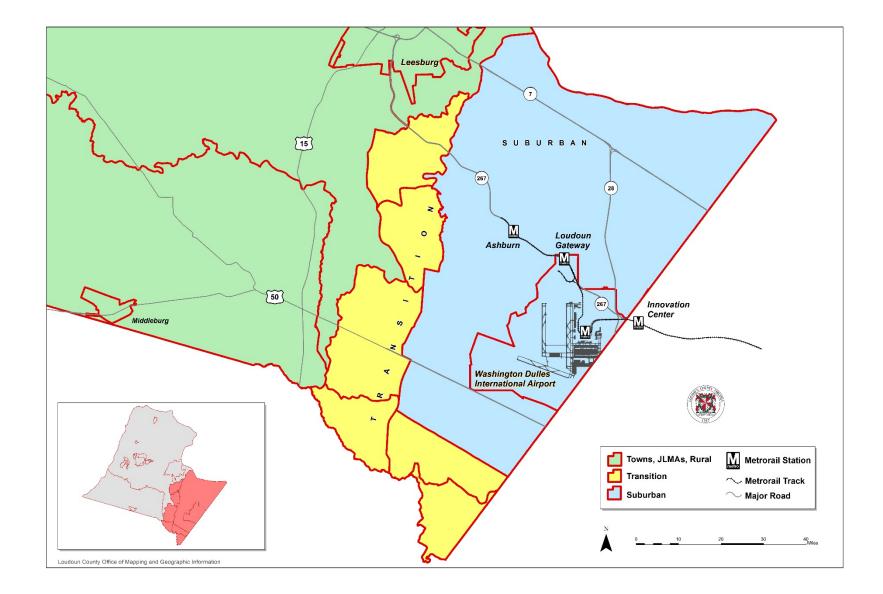
Countywide: Revised General Plan vs. Proposed Plan Medium

Net Fiscal Impact: Multi-Year Intervals





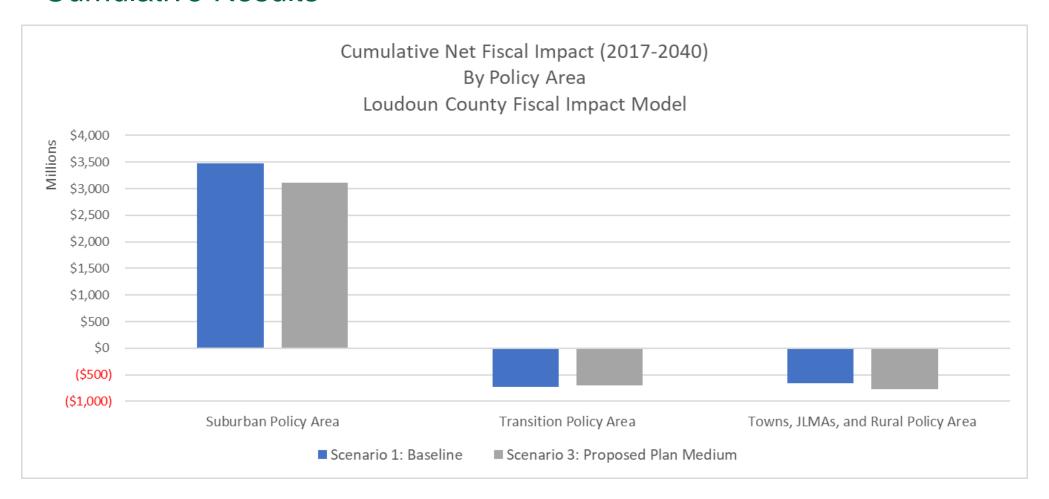
Geographies





Policy Areas: Net Fiscal Impact

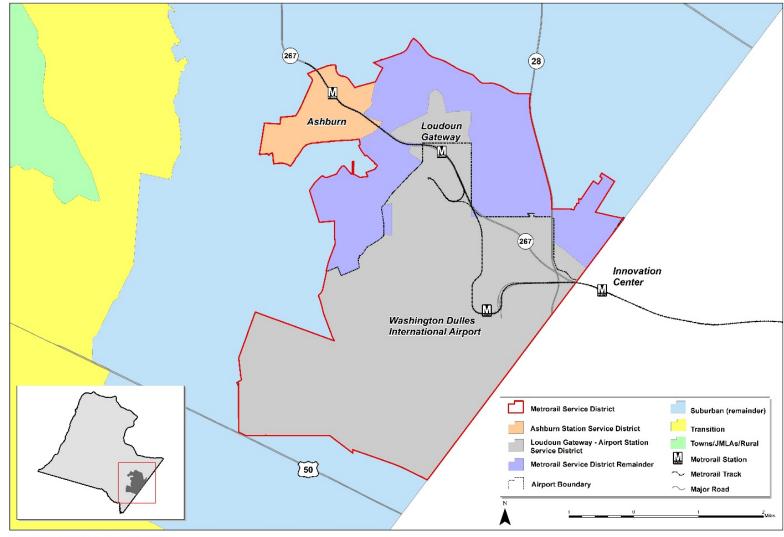
Cumulative Results





Metrorail Tax Districts

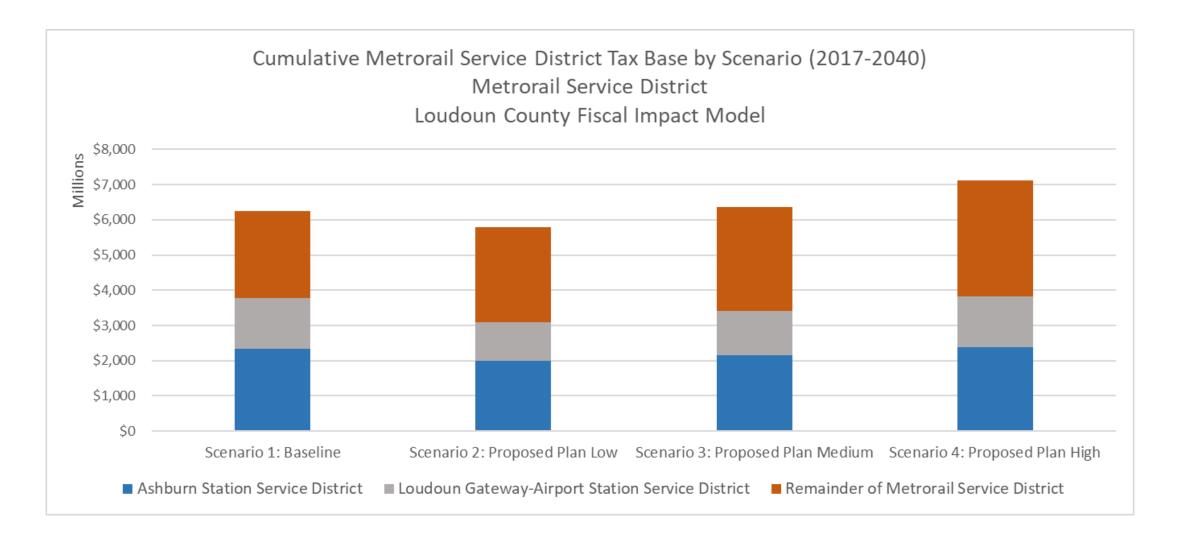
- Ashburn Station
 Service District
- Loudoun Gateway-Airport Station
 Service District
- Metrorail Service
 District
 - Both Station Service Districts, plus additional area







Metrorail Service District: Tax Base





Loudoun County Fiscal Impact Results

RGP & Proposed Plan Medium – Net Fiscal Impact

Suburban Policy Area



• Transition Policy Area & Remainder



- Predominantly residential and no capital offsets (proffers)
- Countywide mix of the areas



RGP & Proposed Plan Medium – Metrorail Service District

- \$6+ billion tax base increase
- \$178 million (RGP) & \$186 million (PP Med) tax revenues at \$0.20 tax rate



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Countywide Transportation Plan & Travel Demand Modeling

July 12, 2018 | Planning Commission Meeting



What is the CTP? What does it do?

- Establishes long-range vision for County's transportation network
- Identifies existing and planned arterial and collector roads
- Policies for roadways, transit, and bicycle & pedestrian accommodations
- Financially unconstrained plan based on mobility, access, safety, and efficiency goals
- Provides for a transportation system to meet the needs of the general (land use) plan









How is the CTP Used?

- To preserve right-of-way for future (long-term) capacity
- To guide implementation of projects to improve the transportation network
- To ensure developer conformance with the County's long-term vision
- To preserve historic corridors and ensure protection of the environment
- To help inform prioritization of capital projects





Loudoun 2040 CTP Overview



Transportation Network Goals

- 1. Enhanced multi-modal safety for all system users.
- 2. A reliable and efficient multi-modal transportation network that manages the travel demands of the County while maintaining fiscal and environmental sustainability.
- 3. Transportation choices that connect people to their communities, employment centers, educational institutions, activity centers, and other amenities.
- 4. Integration with neighboring jurisdictions to improve regional and statewide connectivity and to attract residents and businesses to Loudoun County.



Transportation Network Goals

- 5. Support the growth and potential of enhanced national and international connectivity including consideration of Washington Dulles International Airport and the Silver Line Metrorail Stations.
- 6. Context-sensitive planning and design that addresses the different characteristics and needs of the urban, suburban, transition, Towns, JLMA, and rural environments.
- 7. A transportation network supportive of the County's overall vision to support economic development, create vibrant, safe communities and public spaces, and protect natural and heritage resources.



Transportation Policy Intent

- Development of plan policy considered:
 - Public Input
 - Incorporation of 2003 Bicycle & Pedestrian Mobility Master Plan
 - Incorporation of 2010 Countywide Transportation Plan
 - Incorporation of draft Silver Line CPAM
 - Alterations based upon County CIP expansion since 2010

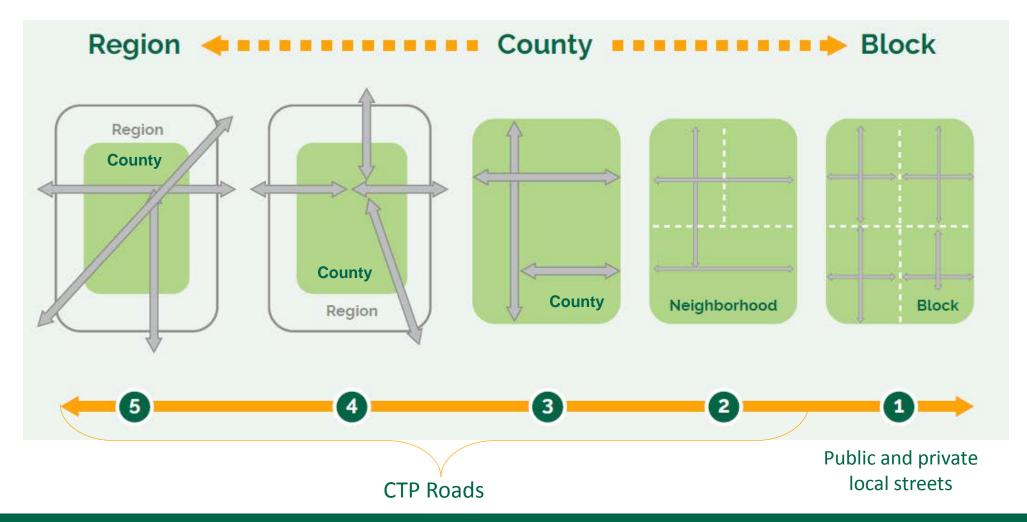


Transportation Policy Intent

- This Plan Strives for:
 - Greater clarity
 - Streamlined policies
 - Greater flexibility where appropriate
 - Maintenance of supportable policy goals
 - More context-sensitive transportation planning
 - Improved integration with the General Plan



Roadway Planning - Street Function





Roadway Planning - Corridors

- Reconsideration of Functional Classification
 - Based on FHWA and VDOT Standards
 - Will provide improved opportunities for regional funding
 - Will facilitate improved information for BOS prioritization efforts
- Preservation of Historic Corridors
 - Provides specific designation for design and ultimate planned condition of corridor



Bicycle & Pedestrian Planning

- Combination of 2003 Bike/Ped Plan and 2010 CTP concepts and policies
- Calls for facilities on roads in the Suburban and Transition Policy Areas, with more robust facilities on CTP Roads

 CTP provides broad guidelines for facility types based on the number of planned roadway lanes







Envision Loudoun – Bicycle and Pedestrian Planning A New Bicycle and Pedestrian Transportation Plan, including:

- A complete review and analysis of existing infrastructure and identification of missing segments
 - Focus on regional trail corridors such as the W&OD Regional Park
- Mobility goals and policy to guide development of these transportation networks
- A map of the ultimate conditions for bicycle and pedestrian facilities that will result in a comprehensive network for bicycle and pedestrian mobility
- Full integration with plans and facilities in neighboring jurisdictions and incorporated towns
- Analysis of appropriate **road crossing** guidelines
- A focus on context-sensitive walking and cycling options for both eastern and western Loudoun





Envision Loudoun - Community Outreach

"Build-a-Street"



Most frequently selected roadways:

- VA Route 7
- VA Route 9
- US Route 15
- Loudoun County Parkway
- Streets near the Silver Line Stations

Aesthetic and Amenity Preferences



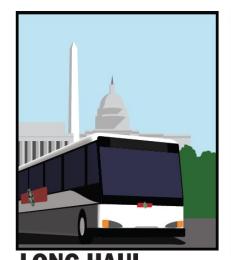
Rural Area

Suburban Residential Area

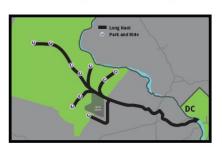
Commercial Activity Centers



Transit Facilities and Services Planning



LONG HAUL
Direct service from park and rides to Washington, DC





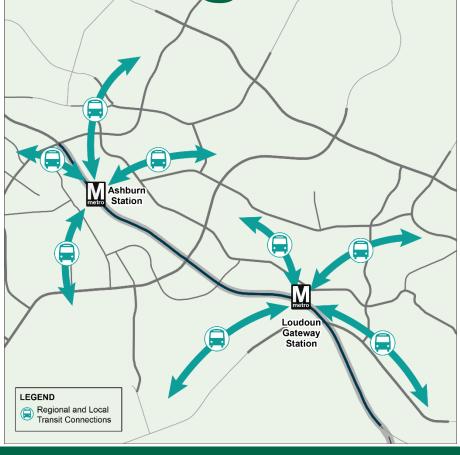
METRO CONNECTION
Direct service from park and rides to Metro Stations





Circulates though the county stopping at bus stops Metro stations and park and rides







Loudoun 2040 CTP Outline

- 1. Introduction
- 2. Vision for Transportation
- 3. The Countywide Transportation Network
- 4. Built Environment & Geographic Policy Areas
- 5. Air Travel
- 6. Mitigating the Impacts of Development
- 7. Regional, State & Local Coordination
- 8. Environmental & Heritage Resources
- 9. Prioritization & Funding
- 10.Implementation



Discussion on Implementation

Consideration of Implementation Steps Based On:

- New policies
- Increased County commitment to CIP transportation funding
- Creation of actionable steps
- Opportunities to consolidate and simplify
- Evaluation of actions that have not been implemented
- Removal of actions that are no longer relevant or that County has addressed
- Revision of language to recognize ongoing County activities, incorporation a positive tone, and focus on desired outcomes



Implementation Step Guidelines

Implementation steps aim to:

- Be broad enough to provide flexibility based on studies and future conditions
- Be direct enough to provide guidance for future Board action(s)
- Encourage reevaluation and reconsideration of plan policies and opportunities for adoption into ordinances (where appropriate)
- Recognize the role of the Comprehensive Plan as the guiding document for all future efforts and ordinance amendments
- Identify long-range ambitions deriving from this plan



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Travel Demand Model Results & Conclusions



CTP Development & Evaluation

- Modifications made from currently adopted CTP to address Envision Loudoun proposed land use
- Travel demand modeling exercise was used to evaluate the performance of the transportation network with the proposed land use plan
- Loudoun County Model is based on the Metropolitan
 Washington Council of Governments (MWCOG) travel demand
 model, a regional model covering all or part of more than 15
 jurisdictions in Virginia, Maryland and the District of Columbia.



Travel Demand Modeling Overview

Travel Demand Model Components

- Roadway Network incorporates attributes such as number of lanes, functional class, speeds, and tolls
- Traffic Analysis Zones (TAZs) geographic unit used to create trips
- Socioeconomic Data population and employment data that is assigned to each TAZ
- Other inputs park and ride lot data, airports, external stations (locations on the edge of the network), which are obtained from the MWCOG model

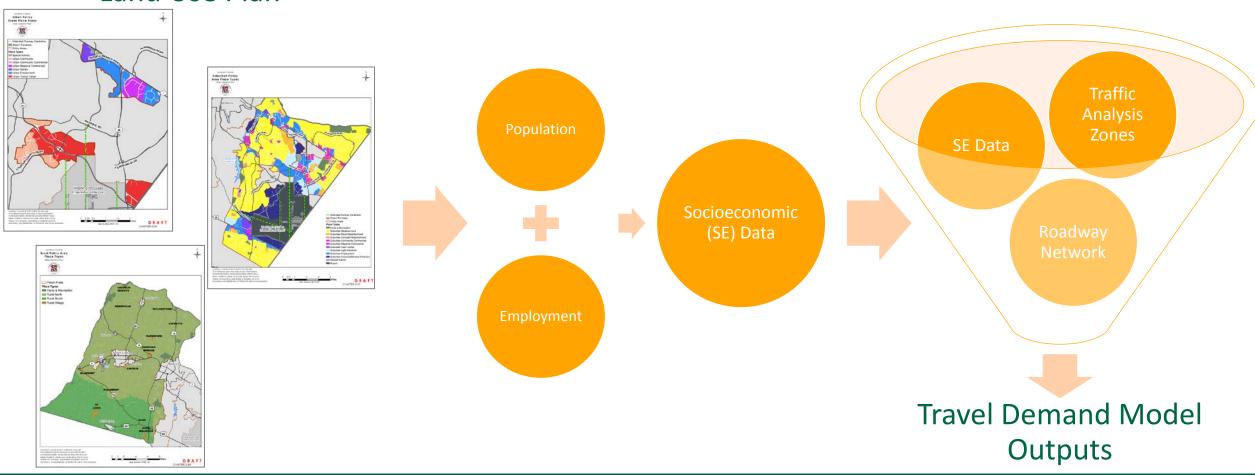
Model Outputs

- Inform decisions on capacity of the network as a whole, and the performance of specific facilities
- Outputs include:
 - Highway traffic volumes
 - Volume-to-capacity ratios



Travel Demand Modeling Process

Land Use Plan





CTP Scenarios

Envision Loudoun Land Use + Proposed Loudoun 2040 CTP Network

Revised General Plan Land Use + Proposed Loudoun 2040 CTP Network

Revised General Plan Land Use + Currently Adopted 2010 CTP Network



Envision Loudoun Scenario Results

Rural Policy Area Capacity Constraints

- Route 9 west of Hillsboro, east of Route 287
- Route 287 north of Purcellville
- **US Route 15** Montresor Road to the Maryland Line
- Route 7 Round Hill to Purcellville
- US Route 50 near Middleburg and Aldie
- **US Route 15** south of US Route 50 into Prince William County

Transition Policy Area Capacity Constraints

- US Route 50 between US Route 15 and Northstar Boulevard
- Braddock Road between US Route 15 and Northstar Boulevard
- **Gum Spring Road** at the Prince William County line



Envision Loudoun Scenario Results

Urban & Suburban Policy Area Capacity Constraints

- Route 7 Belmont Ridge Road to the Fairfax County Line
 - Capacity remains available on parallel routes such as the Dulles Greenway, Gloucester Parkway, Riverside Parkway, and Russell Branch Parkway.
- Connections around the future Metrorail Stations
 - Including: Loudoun County Parkway, Metro Center Drive, Barrister Street, Route 606, and Moran Road.
- The capacity constraints present on Route 28 and the intersecting roadways such as Waxpool Road, Gloucester Parkway, and Route 7 suggest that travel demand may be avoiding the Dulles Greenway.



Envision Loudoun Model & Currently Adopted Model

- Consistent constraints between both models
 - Route 7 and Route 28
 - Arcola Boulevard / Gum Spring Road Corridor
 - US 50 / US Route 15 Intersection
 - Rural Corridors
- Improvement with Envision Loudoun Model
 - Route 606 constraints are improved by additional lane capacity between Loudoun County Parkway and Dulles Greenway (6 lanes in current CTP to 8 lanes in Envision Loudoun)



CTP Conclusions

- The proposed CTP network consists of improvements to an already robust transportation plan that largely addresses the travel demands of the Envision Loudoun land use plan
- Limited access and capacity improvements on Route 7, US Route 50,
 Route 606 enable corridors to operate with few constraints
 - Parallel routes to these major arterials have capacity as well
- Growth and travel demand in neighboring jurisdictions create constraints along rural arterials



CTP Conclusions

- Rural Primary Roadway Recommendations
 - No changes are currently proposed to add additional capacity to rural primary corridors in the draft Loudoun 2040 CTP.
 - The draft Loudoun 2040 CTP reflects the currently adopted CTP for US Route 15 between Leesburg and Montresor Road, incorporating the four-lane widening approved by the Board in March 2018.
 - Rural primary routes will be further evaluated based Board of Supervisors directed Safety and Operational Studies (SOS). This includes the ongoing study for US Route 15 north of Leesburg and the recently authorized (July 3, 2018) studies for Route 9 and US Route 15 south of Leesburg.
 - Future Safety and Operational Studies are anticipated to be funded in future fiscal years for US Route 50, Route 287, and Route 7 west of Round Hill.



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Next Steps

Work Session:

Answers to Initial
Questions

Begin Land Use

Discussion

August 11

All-day Saturday
Work Session

Work Session:
Ensure Initial
Land Use
Decisions
Completed

Work Session:
Ensure Initial
Decisions on
Other GP
Chapters & CTP
Completed



Moving Forward

- Review Plans and Materials Delivered Tonight
- August-September: Work through Recommendations of Stakeholders Committee, Staff & Planning Commission
 - Additional Staff Recommendations Likely Prior to August Meetings
 - Revise Plans
- October: Review of Revised Plans
- November: Finalize Plans and Hold Public Hearing
- December: Recommend Plans to Board



Any Questions?



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